

THE CUBAN SLAVE MARKET

1790–1880

LAIRD W. BERGAD

*Lehman College and
Graduate School and University Center
The City University of New York*

FE IGLESIAS GARCÍA

Instituto de Historia de Cuba, Havana

MARÍA DEL CARMEN BARCIA

Instituto de Historia de Cuba, Havana



CAMBRIDGE
UNIVERSITY PRESS

Published by the Press Syndicate of the University of Cambridge
The Pitt Building, Trumpington Street, Cambridge CB2 1RP
40 West 20th Street, New York, NY 10011-4211, USA
10 Stamford Road, Oakleigh, Melbourne 3166, Australia

© Cambridge University Press 1995

First published 1995

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Bergad, Laird W., 1948–

The Cuban slave market 1790–1880 / Laird W. Bergad, Fe Iglesias
García, María del Carmen Barcia.

p. cm. – (Cambridge Latin American studies ; 79)

Includes bibliographical references.

ISBN 0-521-48059-0

I. Slave trade – Cuba – History. I. Iglesias García, Fe.
II. Barcia, María del Carmen, 1939– . III. Title. IV. Series.

HT 1077.B47 1995

380.1'44'097291 – dc 20

94-38288

CIP

A catalog record for this book is available from the British Library.

ISBN 0-521-48059-0 Hardback

Contents

<i>Tables and figures</i>	vii
<i>Preface and acknowledgments</i>	xiii
<i>Glossary</i>	xvii
1 Introduction: Prices and the historiography of slavery	1
2 Sources and methods of data collection	15
Sources	15
Methods of data collection	17
Nominal and “real” prices	22
3 The development of African slavery and Cuban economic history	23
4 The price structure of the Cuban slave market, 1790–1880	38
Demographic characteristics of the Cuban slave market	40
General price trends and statistical correlations	47
Short-term fluctuations in slave prices	52
Price differentials by sex	61
Price differentials by origin	67
Occupations	72
5 Regional variations in the Cuban slave market: Havana, Santiago, and Cienfuegos	79
Slavery and the socioeconomic development of the Havana region	79
The Havana slave market	85
Slavery and the socioeconomic development of the Santiago region	94
The Santiago slave market	99
Slavery and the socioeconomic development of the Cienfuegos region	103

The Cienfuegos slave market	111
6 <i>Coartación</i> and letters of freedom	122
<i>Coartados</i>	122
Letters of freedom	128
<i>Coartación</i> and manumission in comparative perspective	131
7 Conclusions and comparative perspectives	143
<i>Appendix A: Nominal and real slave prices using international price indexes</i>	155
<i>Appendix B: Statistical data base on the Cuban slave market</i>	161
<i>Bibliography</i>	233
<i>Index</i>	243

Tables and figures

Tables

4.1	Slave sales by sex, origin, age, and place, 1790–1880	<i>page</i> 40
4.2	Slave sales by origin, sex, and age, 1790–1880	41
4.3	Slave sales by origin, age, and time period	41
4.4	Slave sales by sex, age, and time period	41
4.5	Correlation coefficients between average prices for prime-age slaves and selected variables	49
4.6	Average prices of slaves ages 15–40 by sex and origin, 1836–1868	69
4.7	National origins of African slaves sold, 1790–1880	72
4.8	Average prices of slaves by nationality, 1790–1868	73
4.9	Average prices of domestics, 1821–1835	76
4.10	Average prices of domestics, drivers, and field hands of both sexes, 1836–1868	77
4.11	Price ratios of domestics/field hands; drivers/field hands; and drivers/domestics of both sexes for selected years, 1840–1863 (in percentages)	78
5.1	Slaves sold in Havana by sex, nationality, and age, 1790–1880	86
5.2	Age structure of the slave populations of Havana, Santiago, Cienfuegos, and Cuba, 1862 (in percentages)	98
5.3	Slaves sold in Santiago by sex, nationality, and age, 1816–1875	100
5.4	Slave sales by category for Havana, Santiago, and Cienfuegos, 1830–1863 (in percentages)	111
5.5	Females as percentage of total slave populations of Havana, Santiago, and Cienfuegos, 1846 and 1862	111
5.6	Slaves sold in Cienfuegos by sex, nationality, and age, 1830–1863	114
5.7	Comparative price ratios by category for slaves sold in	

	Havana, Santiago, and Cienfuegos, 1844–1862 (in percentages)	115
5.8	Average prices and price indexes for slaves ages 15–40, Havana, Santiago, and Cienfuegos, 1836–1863 (for indexes 100=price in Havana)	119
6.1	<i>Coartados</i> and slaves sold in Havana, Santiago, and Cienfuegos by category, 1790–1880	125
6.2	Letters of freedom issued in Havana, Santiago, and Cienfuegos by category, 1790–1880	131
6.3	Profile of manumissions in various slave-holding regions in various time periods (in percentages)	141
A.1	Cuban slave price indexes and U.S., British, and Spanish price indexes used to convert the Cuban nominal slave price indexes into “real” slave price indexes for slaves ages 15–40	158
A.2	Correlation coefficients resulting from comparing the Cuban slave price index with U.S., British, and Spanish general price indexes for varied time periods for slaves ages 15–40	160
B.1	Average slave prices by sex, age, and nationality, Havana, Santiago, and Cienfuegos, 1790–1880	162
B.2	Average slave prices by sex, age, and nationality, Havana, 1790–1880	174
B.3	Average slave prices by sex, age, and nationality, Santiago, 1816–1875	186
B.4	Average slave prices by sex, age, and nationality, Cienfuegos, 1830–1863	194
B.5	Average slave prices by African nationality, Havana, Santiago, Cienfuegos, 1790–1880	199
B.6	Average slave prices by occupation, Havana, Santiago, Cienfuegos, 1790–1875	207
B.7	Average <i>coartado</i> prices by sex, age, and nationality, Havana, Santiago, and Cienfuegos, 1791–1880	213
B.8	Average <i>coartado</i> prices by sex, age, and nationality, Havana, 1791–1880	219
B.9	Average <i>coartado</i> prices by sex, age, and nationality, Santiago, 1817–1866	225
B.10	Average <i>coartado</i> prices by sex, age, and nationality, Cienfuegos, 1830–1863	227
B.11	Assessment values by sex, age, and nationality, Havana and Santiago, 1802–1877	228
B.12	Assessment values by sex, age, and nationality, Havana, 1802–1877	230

B.13	Assessment values by sex, age, and nationality, Santiago, 1826-1875	231
------	---------------------------------------------------------------------	-----

Figures

3.1	Slave imports to Cuba, 1790-1866 (in thousands)	27
4.1	Slave sales by age group and time period, 1790-1880 (in percentages)	42
4.2	Slave sales by origin and time period, 1790-1880 (in percentages)	42
4.3	Slave sales by sex and time period, 1790-1880 (in percentages)	43
4.4	Average prices for all slaves ages 15-40, 1790-1875	48
4.5	Average prices for all slaves ages 15-40 compared with sugar exports, 1790-1875	49
4.6	Average prices for all slaves ages 15-40 compared with slave imports, 1790-1866	50
4.7	Average prices for all slaves ages 15-40 compared with sugar prices, 1800-1875	50
4.8	Price ratios of male to female slaves ages 15-40 in percentages, 1790-1871	62
4.9	Average prices for slaves ages 15-40 by sex, 1790-1880	63
4.10	Price ratios of Creole males to African males ages 15-40 in percentages, 1836-1865	70
4.11	Price ratios of Creole females to African females ages 15-40 in percentages, 1836-1862	70
4.12	Average slave prices by African nationalities, 1790-1868	75
5.1	Havana, percentage of slave sales by age, 1790-1880	87
5.2	Havana, percentage of slave sales by origin, 1790-1880	87
5.3	Havana, percentage of slave sales by sex, 1790-1880	88
5.4	Price ratios of Creole to African slaves ages 15-40 in percentages for Havana, 1790-1865	88
5.5	Price ratios of male to female slaves ages 15-40 in percentages for Havana, 1790-1871	89
5.6	Havana, average price by sex, ages 15-40, 1790-1880	89
5.7	Havana, average price by origin, ages 15-40, 1790-1880	90
5.8	Havana, average price by age group, 1790-1880	91
5.9	Santiago, percentage of slave sales by age, 1835-1864	101
5.10	Santiago, percentage of slave sales by origin, 1835-1864	101
5.11	Santiago, percentage of slave sales by sex, 1816-1864	102
5.12	Price ratios of Creole to African slaves ages 15-40 in percentages for Santiago, 1836-1855	103

5.13	Price ratios of male to female slaves ages 15-40 in percentages for Santiago, 1836-1855	104
5.14	Santiago, average price by sex, ages 15-40, 1836-1855	104
5.15	Santiago, average price by origin, ages 15-40, 1836-1855	105
5.16	Santiago, average price by age group, 1836-1862	105
5.17	Cienfuegos, percentage of slave sales by age, 1845-1863	112
5.18	Cienfuegos, percentage of slave sales by origin, 1840-1863	113
5.19	Cienfuegos, percentage of slave sales by sex, 1840-1863	113
5.20	Price ratios of Creole to African slaves ages 15-40 in percentages for Cienfuegos, 1844-1862	116
5.21	Price ratios of male to female slaves ages 15-40 in percentages for Cienfuegos, 1844-1863	116
5.22	Cienfuegos, average price by sex, ages 15-40, 1844-1863	117
5.23	Cienfuegos, average price by origin, ages 15-40, 1844-1863	117
5.24	Cienfuegos, average price by age group, 1843-1863	118
5.25	Havana, Santiago, and Cienfuegos compared, average price for males ages 15-40, 1836-1863	118
5.26	Havana, Santiago, and Cienfuegos compared, average price for females ages 15-40, 1836-1863	120
5.27	Havana, Santiago, and Cienfuegos compared, average price for Creoles ages 15-40, 1836-1863	120
5.28	Havana, Santiago, and Cienfuegos compared, average price for Africans ages 15-40, 1836-1863	121
6.1	Percentage of <i>coartado</i> sales by sex, 1791-1880	125
6.2	Percentage of <i>coartado</i> sales by origin, 1791-1880	126
6.3	Percentage of <i>coartado</i> sales by age, 1791-1880	126
6.4	Average price for slaves and <i>coartados</i> ages 15-40, 1790-1872	127
6.5	Price ratios of <i>coartados</i> to slaves ages 15-40 in percentages, 1790-1872	128
6.6	Average prices of slaves and letters of freedom for ages 15-40 for selected years, 1796-1871	129
6.7	Price ratios of letters of freedom to slave prices for slaves ages 15-40, 1796-1871	130
6.8	Percentage of letters of freedom by sex, 1790-1880	132
6.9	Percentage of letters of freedom by origin, 1790-1880	132
6.10	Percentage of letters of freedom by age, 1790-1880	133
6.11	Prices for <i>libertados</i> in Salvador, Bahia compared with Cuban <i>coartados</i> , 1808-1878	136

6.12	Price ratios of male to female <i>libertados</i> in Bahía compared with <i>coartados</i> in Cuba, 1808–1878	137
7.1	Slave prices for two U.S. slave markets for prime-age males compared with Cuba, 1795–1860	148
7.2	Slave prices for prime-age males in New Orleans compared with prime-age Cuban males, 1820–1862	148
7.3	Slave prices for prime-age males in New Orleans compared with prime-age Cuban males, 1804–1860	149
7.4	Slave prices for all slaves in Rio de Janeiro compared with all Cuban slave prices, 1835–1880	150
7.5	Slave prices for males ages 15–29 in Rio Claro compared with prime-age Cuban males, 1843–1880	151
7.6	Slave prices for male and female slaves ages 20–25 in Vassouras compared with Cuba, 1822–1877	152
7.7	Slave prices for male and female slaves ages 20–25 in Pernambuco compared with Cuba, 1852–1880	152
A.1	Nominal and real slave price indexes in Cuba calculated using U.S. price indexes for slaves ages 15–40, 1790–1860	156
A.2	Nominal and real slave price indexes in Cuba calculated using British price indexes for slaves ages 15–40, 1800–1872	157
A.3	Nominal and real slave price indexes in Cuba calculated using Spanish price indexes for slaves ages 15–40, 1812–1872	157

Introduction: Prices and the historiography of slavery

This book is about the price history of the Cuban slave market during the most intense period of slave-based sugar plantation growth in Cuban history. It owes its intellectual origins to general trends in economic history over the past three decades, evolving methodologies for analyzing slave societies in the Americas, and debates about the history of slavery in Cuba.

Because commodity prices provide the basic economic reference points for peoples in most societies, understanding their trends over extended time periods is essential for interpreting economic history and can also provide important insights into noneconomic aspects of human behavior.¹ Although data on prices may serve as valuable analytical tools, price history has only recently become important to Latin American and Caribbean historians despite the early publication of seminal works touching upon Latin America that have had a lasting impact on the historical profession. The most significant was Earl J. Hamilton's 1934 study of European price rises, their linkage to bullion flows from the Americas, and the role which American silver played in stimulating the process of capital accumulation leading to the industrial revolution.² Hamilton demonstrated the potential of using price data to examine and interpret long-term historical processes at the regional and international levels.

Nearly a quarter century would pass until Latin American price history began in earnest. This was heralded by the 1958 publication of Woodrow Borah and Sherburne Cook's study of prices in central Mexico; Guillermo Lohmann Villena's little known 1961 work on prices in Lima, Peru; and Ruggiero Romano's 1963 examination of commodity prices in Argentina

1. Because price changes can be affected by a wide range of factors, such as wars, natural disasters, and political decision making, price series data used for historical analysis must be supplemented by diverse economic and noneconomic data to make them intelligible. It is important to convert prices from dry meaningless numbers into important instruments for analyzing social, economic, and political history.

2. Earl J. Hamilton, *American Treasure and the Price Revolution in Spain* (Cambridge: Harvard University Press, 1934).

and Chile.³ These pioneering works were followed by the widely acclaimed 1969 study by Enrique Florescano on corn prices and agrarian cycles in eighteenth-century Mexico.⁴

The publication of Florescano's book revealed how voluminous archival documentation, commonly found in primary source collections throughout the region, could be utilized to glean valuable quantitative data which had largely been ignored by prior generations of researchers, and how these data could be used to forge innovative interpretations of the past. Few students working at the graduate level in Latin American history were not exposed to Florescano's methodology in the 1970s and after.

Interest in collecting statistical data among Latin American historians was additionally stimulated by the revolution in research methodology often referred to as econometric history, or "cliometrics," which entails the use of large data bases processed by computer to understand the past through scientific analysis of time-series data.⁵ This methodological revolution was international in scope and generally referred to as the "New Economic History." Quantitative analysis and data base research was further inspired by innovations in computer technology which permitted access to methods, machines, and constantly evolving software programs that prior to the 1970s had been the exclusive domain of specialists in the natural sciences or technical fields such as engineering.

The results of the research and writing of the past two decades on Latin American price history have indicated methodologies for examining prices and have provided important foundations for further research. Current prices and price indexes for a wide array of commodities for Mexico and Peru, the two most important centers of the Spanish Empire during the colonial period; for various regions in Brazil; and for some of the independent nations in Latin America during the nineteenth century, are now available.⁶

3. Woodrow Borah and Sherburne F. Cook, *Price Trends of Some Basic Commodities in Central Mexico, 1530–1570* (Berkeley and Los Angeles: University of California Press, 1958); Ruggiero Romano, "Movimiento de los precios y desarrollo económico: el caso de sudamérica en el siglo XVIII," *Desarrollo Económico* 3, nos. 1–2 (1963): 31–43; and Guillermo Lohmann Villena, *Apuntaciones sobre el curso de los precios de los artículos de primera necesidad en Lima durante el siglo xvi* (Lima: Ediciones Solar/Hachette, 1961).
4. Enrique Florescano, *Precios del maíz y crisis agrícolas en México (1708–1810)* (Mexico: El Colegio de México, 1969). Florescano also published a state of the research article in 1968, Enrique Florescano, "La historia de los precios en la época colonial de hispanoamérica: tendencias, métodos de trabajos y objetivos," *Latino-América: Anuario de Estudios Latinoamericanos* (1968): 111–29.
5. The dissemination of knowledge on a broad scale about the methods of cliometricians within the historical profession dates from the publication of the controversial study of slavery in the United States by Robert William Fogel and Stanley L. Engerman, *Time on the Cross: The Economics of American Negro Slavery* (New York: Norton, 1974). The impact of this book will be considered below.
6. For a summary of the most recent work on the reconstruction of price series data for Latin America during the colonial period, see the essays in Lyman L. Johnson and Enrique Tandeter, *Essays on the Price History of Eighteenth-Century Latin America* (Albuquerque: University of New Mexico Press,

It is within this general context of inquiry into historical prices that studies on the price history of slavery must be considered. Slave price data have played a crucial role in the debates over the economics of slave labor in the Americas raging since the 1960s, although until very recently few reliable time-series data on slave prices have been available for Latin American or Caribbean slave societies. The most detailed studies have focused on slavery in the U.S. South.

These were pioneered by Ulrich B. Phillips who in 1918 published a path breaking book on slavery in the United States and subsequently wrote a number of books and articles elaborating the themes developed in *American Negro Slavery*.⁷ Phillips was the first historian to collect and analyze systematic time-series data from archival documents on the slave-based economy of the antebellum South. Among the many data sets developed by Phillips was the first complete series of slave prices for the principal slave markets of the United States: New Orleans, mid-Georgia, Virginia, and Charleston, South Carolina. These were based on probate and plantation records and bills of sale.⁸

Using his price data on slaves in conjunction with other information on the plantation economy of the southern United States, Phillips fashioned a powerful argument indicting slavery on economic grounds. Phillips contended that slave labor was generally inefficient and unprofitable, except in certain conditions of high soil fertility or where slaves were actively traded for profit.⁹ He developed analytical points of equal importance on

1989). An important article published after the Johnson and Tandeter book came out is Paul Gootenberg, "Carneros y Chuño: Price Levels in Nineteenth-Century Peru" *Hispanic American Historical Review* 70, no. 1 (1990): 1–56. For Brazilian prices see the study by Mircea Buescu, *300 anos de inflação* (Rio de Janeiro: APEC, 1973); and Harold B. Johnson Jr., "A Preliminary Inquiry into Money, Prices, and Wages in Rio de Janeiro, 1763–1823," in Dauril Alden, ed., *Colonial Roots of Modern Brazil* (Berkeley and Los Angeles: University of California Press, 1973) pp. 231–83. For *Alto Perú* during the colonial period see Enrique Tandeter and Nathan Wachtel, *Precios y producción agraria: Potosí y Charcas en el siglo XVIII* (Buenos Aires: Estudios CEDES, 1984).

7. Ulrich Bonnell Phillips, *American Negro Slavery: A Survey of the Supply, Employment and Control of Negro Labor as Determined by the Plantation Régime* (New York: Appleton and Company, 1918).
8. Although most historians have recognized that the trends established by Phillips for the U.S. slave market were fairly accurate, there is general agreement that Phillips mishandled the raw data and produced distortions in slave prices approximately 20% higher than actual prices. Stanley L. Engerman, in an unpublished study of the New Orleans data used by Phillips, confirmed this to Prof. Bergad by graciously sending him a copy of his revised data set for inspection. Laurence J. Kotlikoff has confirmed this differential by analyzing the New Orleans data on 5,700 slave sales generated by Fogel and Engerman for *Time on the Cross*. See Laurence J. Kotlikoff, "Quantitative Description of the New Orleans Slave Market, 1804 to 1862," in Robert William Fogel and Stanley L. Engerman, eds., *Without Consent or Contract, Markets and Production, Technical Papers*, vol. 1 (New York: Norton, 1992), pp. 31–53.
9. See Robert William Fogel and Stanley L. Engerman, *Time on the Cross: Evidence and Methods, a Supplement* (New York: Norton, 1974), pp. 168–247, for a complete discussion of Phillips's work and of the evolution of the historiography on U.S. slavery from 1865 through 1956. For the evolution of economic interpretations on U.S. slavery to the early 1970s see Stanley L. Engerman, "The Effects

the social, political, and cultural elements of slavery but these are beyond the scope of this consideration. The main point to emphasize is that Phillips was the first historian to systematically use slave prices as a tool for understanding economic aspects of slavery. His price series would be used uncritically for the next half century.

The Phillips interpretations of slavery stood unchallenged for nearly forty years until Kenneth Stampp published *The Peculiar Institution* in 1956, which challenged Phillips's economic conclusions on slave labor, although Stampp developed his arguments without marshalling or analyzing significant quantitative data.¹⁰ The Phillips thesis on slave economics was further questioned in a 1958 article on the profitability of slave labor in the U.S. South by Alfred H. Conrad and John R. Meyer.¹¹ Conrad and Meyer began the process of reconsidering the economic dynamics of slave labor through the use of modern quantitative methods of statistical analysis and the application of economic theory to the study of slavery. They examined profits and losses and rates of return on investments in slaves, using the Phillips slave price series as one of the core data sets for their analysis. The Conrad and Meyer article stimulated further quantitative studies on slavery and was followed by the publication in 1962 of "The Economics of American Negro Slavery, 1830–1860" by Robert Evans, Jr. Evans took Phillips to task for his alleged erroneous use of data and furthered the Conrad and Meyer arguments pointing to U.S. slavery's economic viability. It is conspicuous however that, like Conrad and Meyer, one of the most important data sets used by Evans as a point of departure for his analysis was the Phillips slave price series.¹²

Upon the intellectual foundations provided by these studies and stimulated by the wide-ranging interest in slavery which developed in the United States during the 1960s, Robert W. Fogel and Stanley L. Engerman

of Slavery Upon the Southern Economy: A Review of the Recent Debate," *Explorations in Entrepreneurial History*, 2d. series, vol. 4, no. 2 (1967): 71–97, reprinted in Hugh G. J. Aitken, ed., *Did Slavery Pay? Readings in the Economics of Black Slavery in the United States* (Boston: Houghton Mifflin, 1971), pp. 295–327.

10. Kenneth Stampp, *The Peculiar Institution: Slavery in the Ante-Bellum South* (New York: Knopf, 1956). During the 1930s Lewis Cecil Gray began to marshal evidence challenging the conclusions of Phillips on the economic viability of slavery in the southern United States. See Lewis Cecil Gray, *History of Agriculture in the Southern United States to 1860*, 2 vols. (Gloucester, MA: Peter Smith, 1958), originally published in 1933.
11. Alfred H. Conrad and John R. Meyer, "The Economics of Slavery in the Ante Bellum South," *Journal of Political Economy* 66 (April 1958): 95–130.
12. Robert Evans Jr. "The Economics of American Negro Slavery, 1830–1860," in Universities-National Bureau Committee for Economic Research, *Aspects of Labor Economics* (Princeton, NJ: Princeton University Press, 1962), pp. 185–243. The most important research into the economics of slavery in the United States prior to the mid-1960s is summarized in a series of excerpts from books and articles in Harold D. Woodman, ed., *Slavery and the Southern Economy* (New York: Harcourt Brace & World, 1966). Also see the essays in Aitken, ed., *Did Slavery Pay?*

launched the ongoing project which resulted in the publication of the controversial *Time on the Cross* (1974) and more recently of the four-volume *Without Consent or Contract* (1989).¹³ Although many of the conclusions of *Time on the Cross* were vigorously attacked in the immediate aftermath of its publication, it had a monumental impact on the study of slavery in the United States, Latin America, and the Caribbean and stimulated important research into the economics of slave labor.¹⁴ There was no graduate program in history in the United States, Europe, and much of Latin America during the 1970s that did not have its faculty and students actively consider and debate some aspect of Fogel and Engerman's work. In the broadest terms it drew international scholarly attention to econometric history and the possibilities of using archive-derived statistical data bases to analyze how slave-based economic systems functioned. In the case of Latin American historiography, which had already begun to address the importance of price history, those studying slavery were obliged to carefully consider the methodological possibilities so widely publicized by *Time on the Cross*. After its publication there was no study on slavery in Latin America and the Caribbean which did not include some reference to slave prices, attempts at determining profitability in one way or other, or the inclination to apply some kind of quantitative methodology, however rudimentary, to the study of slavery.¹⁵

However, studies on the internal economic aspects of slave labor in Latin American and Caribbean slave societies lag far behind the state of research on slave economics in the United States. There have been a number of studies utilizing the quantitative methods pioneered in the United States, most focusing on Brazil.¹⁶ But most of the research into slavery in the region has

13. Fogel and Engerman, *Time on the Cross*; Robert William Fogel, *Without Consent or Contract: The Rise and Fall of American Slavery* (New York: Norton, 1989); Robert William Fogel, Ralph A. Galantini, and Richard L. Manning, eds., *Without Consent or Contract: Evidence and Methods* (New York: Norton, 1992); Robert William Fogel and Stanley L. Engerman, eds., *Without Consent or Contract: Markets and Production, Technical Papers*, vol. 1 (New York: Norton, 1992); Robert William Fogel and Stanley L. Engerman, eds., *Without Consent or Contract: Conditions of Slave Life and the Transition to Freedom, Technical Papers*, vol. 2 (New York: Norton, 1992).
14. For one of most virulent attacks on *Time on the Cross* see Herbert B. Gutman, *Slavery and the Numbers Game: A Critique of Time on the Cross* (Urbana: University of Illinois Press, 1975). Also see Paul A. David, Herbert G. Gutman, Richard Sutch, Peter Temin, and Gavin Wright, *Reckoning with Slavery: A Critical Study in the Quantitative History of American Negro Slavery* (New York: Oxford University Press, 1976).
15. The literature on Latin American slavery will be carefully reviewed in the conclusion of this book, which will focus on the comparative aspects of slave markets in the Americas.
16. See, for example, Pedro C. de Mello, "Rates of Return on Slave Capital in Brazilian Coffee Plantations, 1871-1881" in Fogel and Engerman, eds., *Without Consent or Contract*, vol. 1, pp. 63-79; Pedro C. de Mello, "Expectation of Abolition and Sanguinity of Coffee Planters in Brazil, 1871-1881," in Fogel and Engerman, eds., *Without Consent or Contract*, vol. 2, pp. 629-46; Pedro Carvalho de Mello, "The Economics of Labor in Brazilian Coffee Plantations, 1850-1888," Ph.D. diss.,

considered the important themes of slave demography, the slave trade, and abolition, largely due to the extensive availability and accessibility of documentary source materials.¹⁷

It has been noted that the United States historiography on the economics of slavery from Phillips on rested on a number of data bases, among which slave price time-series data were fundamental. It is nearly impossible to make the most basic calculations about slave economies without an understanding of labor costs and how they evolved. Stanley Stein, in his innovative and influential 1957 study on the coffee economy of Vassouras, Brazil, offered the first systematic look at slave price trends through an extended time frame (1822 to 1888) for a Latin American slave-based economy. However, his purpose was not to submit slavery to the kind of quantitative analysis, or to use the types of analytical techniques, employed by Conrad and Meyer and later Evans, Fogel, and Engerman in their studies cited above.¹⁸ Additionally, Stein's sample size that was used to determine slave prices was very small, a problem which has plagued many works on Latin American and Caribbean slavery. To date there have been few studies on slave economics which have employed quantitative time-series data bases on the magnitude of the Phillips or Fogel and Engerman data for the United States. Nevertheless, the historiography of Brazilian slavery in particular is impressive, and there have been all kinds of critical quantitative data derived from primary sources produced by a large number of innovative studies.¹⁹

University of Chicago, 1977; and Robert W. Slenes, "The Demography and Economics of Brazilian Slavery," Ph.D. diss., Stanford University, 1976.

17. The studies of slavery in the British West Indies by Barry Higman, and Phillip Curtin, Herbert S. Klein, and David Eltis for the slave trade in general are examples of this. Barry W. Higman, *Slave Populations of the British Caribbean, 1807–1834* (Baltimore: Johns Hopkins University Press, 1984); Barry W. Higman, *Slave Population and Economy in Jamaica, 1807–1834* (New York: Cambridge University Press, 1976); Phillip Curtin, *The Atlantic Slave Trade: A Census* (Madison: University of Wisconsin Press, 1969); Herbert S. Klein, *The Middle Passage: Comparative Studies in the Atlantic Slave Trade* (Princeton, NJ: Princeton University Press, 1978). Also see David Eltis, *Economic Growth and the Ending of the Transatlantic Slave Trade* (New York: Oxford University Press, 1987), and the collection of essays in Joseph E. Inikori and Stanley L. Engerman, eds., *The Atlantic Slave Trade: Effects on Economies, Societies, and Peoples in Africa, the Americas, and Europe* (Durham, NC: Duke University Press, 1992). Other important studies on the slave trade and slave economies are found in the essays in Stanley L. Engerman and Eugene D. Genovese, eds., *Race and Slavery in the Western Hemisphere: Quantitative Studies* (Princeton, NJ: Princeton University Press, 1975); and in Henry A. Gemery and Jan S. Hogendorn, *The Uncommon Market: Essays in the Economic History of the Atlantic Slave Trade* (New York: Academic, 1979); and the monographs by Roger Anstey, *The Atlantic Slave Trade and British Abolition, 1760–1810* (Atlantic Highlands, NJ: Humanities Press, 1975) and Seymour Drescher, *Econocide: British Slavery in the Era of Abolition* (Pittsburgh, PA: University of Pittsburgh Press, 1977).
18. Stanley Stein, *Vassouras: A Brazilian Coffee County, 1850–1900* (Cambridge: Harvard University Press, 1957).
19. Some of these studies will be examined in the concluding chapter of this book. The de Mello contributions are a major exception. They offer a slave price series for selected years between 1835

For the Spanish colonies and subsequent independent nations there has been much important recent research on African slavery.²⁰ However, few studies have generated the systematic time-series data to address the issues and debates spawned by the study of slavery in the U.S. South, nor have they employed econometric historical analyses. William Sharp, in his study of Colombia's mining economy in the Chocó, presented scattered data on slave prices for ten years between 1711 and 1798 and motivated by United States slave studies, examined the question of slave labor's profitability.²¹ But his study's economic orientation was an exception to most of the literature which has focused on other noneconomic themes of importance.

For the non-Hispanic Caribbean, Higman's two works on Jamaica and the British West Indies stand out among research that has generated the most detailed data on the history of slavery, although the slave price information offered is scanty and not based on a large sample. Higman's purpose was not to explore the economics of slave labor, but rather to present an analysis of slave demography and slave-holding patterns. This is also true of A. Meredith John's examination of slavery in Trinidad.²²

and 1887 for Rio de Janeiro based on large yearly samples extracted from the press, which probably implies a fairly significant margin of error. The Slenes Ph.D. dissertation also employs quantitative techniques on the model of Fogel and Engerman. The slave price series used is for the 1870s and 1880s. Among the most important additional studies which have utilized quantitative data bases to study Brazilian slavery are: Pierre Verger, *Fluxo e Refluxo: Do Tráfico de escravos entre o golfo de Benin e a Bahia de Todos Os Santos Dos Séculos XVII a XIX* (São Paulo: Corrupio, 1987), originally published in French in 1968; Katia M. de Queirós Mattoso, *To Be a Slave in Brazil* (New Brunswick, NJ: Rutgers University Press, 1986), originally published in French in 1979; Katia M. de Queirós Mattoso, *Bahia: Século XIX: Uma Província no Império* (Rio de Janeiro: Editora Nova Fronteira, 1992); Katia M. de Queirós Mattoso, Herbert S. Klein, and Stanley L. Engerman, "Trends and Patterns in the Prices of Manumitted Slaves: Bahía, 1819-1888," *Slavery and Abolition* 7, no. 1, (May 1986), pp. 59-67; Stuart B. Schwartz, *Sugar Plantations in the Formation of Brazilian Society: Bahia, 1550-1835* (New York: Cambridge University Press, 1985); Mary C. Karasch, *Slave Life in Rio de Janeiro, 1808-1850* (Princeton, NJ: Princeton University Press, 1987); Warren Dean, *Rio Claro: A Brazilian Plantation System* (Stanford: Stanford University Press, 1976); Peter L. Eisenberg, *The Sugar Industry in Pernambuco, 1840-1910: Modernization Without Change* (Berkeley and Los Angeles: University of California Press, 1974); Douglas Cole Libby, *Transformação e Trabalho em uma economia escravista: Minas Gerais no Século XIX* (São Paulo: Editora Brasiliense, 1988); Amílcar Martins Filho and Roberto B. Martins, "Slavery in a Nonexport Economy: Nineteenth Century Minas Gerais Revisited," *Hispanic American Historical Review* 63, no. 3 (1983): 537-68; Joseph C. Miller, "Slave Prices in the Portuguese Southern Atlantic, 1600-1830," in Paul E. Lovejoy, ed., *Africans in Bondage: Studies in Slavery and the Slave Trade* (Madison: University of Wisconsin Press, 1986), pp. 43-77.

20. For a summary of the literature on slavery in the Spanish colonies and nations see the bibliographical notes in Herbert S. Klein, *African Slavery in Latin America and the Caribbean* (New York: Oxford University Press, 1986).

21. William Sharp, *Slavery on the Spanish Frontier: The Colombian Chocó, 1680-1810* (Norman: University of Oklahoma Press, 1976). See chapter 10, "Mining Economics and the Profitability of Slavery in the Chocó," pp. 171-89.

22. See A. Meredith John, *The Plantation Slaves of Trinidad, 1783-1816* (New York: Cambridge University Press, 1988).

Three other works which discuss many aspects of the slave-based histories of British West Indies colonies and present much valuable statistical data but without the utilization of the quantitative methodologies employed by United States slave economic studies were written by Dunn, Sheridan, and Craton.²³ More recently, however, the Barbados slave market has been studied by David Galenson. A reliable price series for slaves has emerged, and some aspects of the Barbados slave market have been compared with the U.S. data generated by Fogel and Engerman.²⁴

For the French Caribbean colonies quantitative studies are scarce. There are no detailed economic analyses on the slave-based economy of French Haiti, as most of the historiography for so long has been centered on themes related to the mulatto-led revolt beginning in 1791 that turned into the legendary slave uprising.²⁵ A recent well-researched work by Dale Tomich has generated a great deal of quantitative data for Martinique, including a list of slave prices. But it was not the author's purpose to analyze the economics of slavery.²⁶

We now turn to the Hispanic Caribbean. For Puerto Rico, where slave labor was important for sugar production, several studies motivated by recent quantitative methodologies have appeared. The most notable are Francisco Scarano's work on the plantation zones of southern Puerto Rico; Andrés Ramos Mattei's general consideration of the sugar hacienda system; and José Curet's micro-level examination of slave prices and economics for the south-coast region of Ponce for selected years after 1850.²⁷ Curet's work

23. See Richard S. Dunn, *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624–1713* (Chapel Hill: University of North Carolina Press, 1972); Richard B. Sheridan, *Sugar and Slavery: An Economic History of the British West Indies* (Baltimore: Johns Hopkins University Press, 1973); and Michael Craton, *Searching for the Invisible Man: Slaves and Plantation Life in Jamaica* (Cambridge: Harvard University Press, 1978).

24. See David W. Galenson, *Traders, Planters, and Slaves: Market Behavior in Early English America* (New York: Cambridge University Press, 1986). See especially chapter 3, "Slave Prices in the Barbados Market, 1673–1723," pp. 53–70, and chapter 4, "On the Order of Purchase by Characteristics at Slave Sales," pp. 71–92.

25. An exception is Gabriel Debien, *Les Esclaves aux Antilles françaises (xvi^e–xviii^e siècles)* (Basse-Terre: Société d'histoire de la Guadeloupe, 1974).

26. Dale W. Tomich, *Slavery in the Circuit of Sugar: Martinique and the World Economy, 1830–1848* (Baltimore: Johns Hopkins University Press, 1990). Tomich's prices are based on very few transactions for most years, and trends in prices are not submitted to any quantitative analysis.

27. Francisco A. Scarano, *Sugar and Slavery in Puerto Rico: The Plantation Economy of Ponce, 1800–1850* (Madison: University of Wisconsin Press, 1984); Andrés Ramos Mattei, *La hacienda azucarera: su crecimiento y crisis en Puerto Rico (Siglo XIX)* (San Juan: CEREP, 1981); José A. Curet, "De la esclavitud a la abolición: transiciones económicas en las haciendas azucareras de Ponce, 1845–1873," in Andrés Ramos Mattei, ed., *Azúcar y esclavitud* (San Juan: Tipografía y Montaje Come-Set Type, 1982). This has been published in English as "About Slavery and the Order of Things: Puerto Rico, 1845–1873," in Manuel Moreno Fraginals, Frank Moya Pons, and Stanley L. Engerman, eds., *Between Slavery and Free Labor: The Spanish Speaking Caribbean in the Nineteenth Century* (Baltimore: Johns Hopkins University Press, 1985), pp. 117–40.

specifically addressed the question of slave profitability and found that slave labor was extremely lucrative for sugar production based on his series of slave prices. For the Dominican Republic new research on slave labor has been published, but again not at the level of quantitative expansiveness found in slave studies elsewhere.²⁸

The historiography on Cuban slavery is the most developed in the Hispanic Caribbean. Even the oldest study, the 1907 book by Hubert Aimes, *The History of Slavery in Cuba, 1511–1868*, provides some data on slave prices, and these are repeated by Fernando Ortíz in his well-known book, *Los negros esclavos*. But the economics of slavery are treated as something mysterious at best, and slave prices are mentioned only as curiosities rather than data which could possibly be used for historical analysis.²⁹ Indeed, there are few studies of eighteenth- and nineteenth-century Cuba which do not mention the cost of slave labor, but rather than pausing to consider the significance of changes in the slave market, there is a quick departure to other themes.

It was in 1964 that Cuban historiography began to utilize some of the quantitative methods developed in Europe and the United States. This was heralded by the publication of Manuel Moreno Fraginals's influential study on the Cuban sugar economy between 1740 and 1860, *El Ingenio*.³⁰ Moreno presented data on Cuba's slave-based sugar economy culled from a wide range of sources that had been long ignored, such as census reports and published production data, and he also made impressive use of manuscript sources located in Cuban and foreign archives. *El Ingenio* elevated the field of Cuban economic history to a new level of sophistication for its broad use of statistical data for historical interpretation rather than mere presentation. It built upon the earlier works of Julio LeRiverend and Heinrich Friedlaender, who had written general economic histories of Cuba; and Ro-

28. See Carlos Esteban Deive, *La esclavitud del negro en Santo Domingo, 1492–1844* (Santo Domingo: Museo del Hombre Dominicano, 1980); and Ruben Silié, *Economía, esclavitud y población: ensayos de interpretación histórica del Santo Domingo en el siglo XVIII* (Santo Domingo: Universidad Autónoma de Santo Domingo, 1976).

29. We consider the Aimes data to be haphazard and unreliable. Ortíz added to the Aimes information by looking at newspaper advertisements for slaves, but as Juan Pérez de la Riva pointed out in 1977, these advertisements were often for "coartados" (see discussion later in this book) or for slaves who were mortgaged. Pérez de la Riva offered his own prices but these were for groups of ten slaves or more sold in auctions, a method of determining prices which we consider to be defective. See Hubert H. S. Aimes, *A History of Slavery in Cuba, 1511–1868* (New York: Putnam, 1907); Fernando Ortíz, *Hampa afro-cubana: Los negros esclavos* (Havana: Revista Bimestre Cubana, 1916); and Juan Pérez de la Riva, *Cuántos africanos fueron traídos a Cuba?* (Havana: Editorial de Ciencias Sociales, 1977).

30. Moreno's study was originally published in 1964 and reissued in an updated three-volume edition in 1978. See Manuel Moreno Fraginals, *El ingenio: complejo económico social cubano del azúcar* (Havana: Editorial de Ciencias Sociales, 1978).